"FM STATIONS - WHERE AND HOW
ARE YOU?"

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During the initial ten-year period of radio broadcasting, there were numerous "educational" radio stations. Unfortunately, the relationship of these stations to education was their physical and engineering aspects rather than their programming.[1] From 1930 through the middle 1940's, some twenty to twenty-five educational radio stations were operating in the AM band. With development of Frequency Modulation radio and the allocation by the Federal Communications Commission of a portion of the FM band for educational radio stations, the number of educational FM stations increased significantly. Presently there are upwards of 170 educational FM radio stations.[2] Many of these stations are low-powered, with transmission power limited to ten watts to provide coverage to limited areas, while others reach over one million potential listeners. Although it has been estimated that fifty percent[3] of the American people are covered by educational radio stations, the listening audience is small when compared to the listening audience of the commercial station. However, the size of the audience is significant when the medium is viewed as an educational aid. Many educational FM stations strive for the highest quality possible in their educational program offerings, while others seem to have applied for an education-FM station-license with no goal in mind other than to have a radio station on campus or in the community.

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[1] Chester, Giraud and Garnet Garrison, Television and Radio: An Introduction (New York: Appleton-Century-Crafts, Inc., 1956), p. 201.

[2] United States Department of Health, Education and Welfare, Educational AM and FM Radio, and Educational Television Stations, (Washington, D.C.: U.S. Government Printing Office, April, 1962).

[3] Op cit, Television and Radio: An Introduction, p. 1.

It would seem both helpful and desirable to have available a regular periodic analysis of the trends in the operation of educational FM broadcast stations.[1] A periodic comparison of the several aspects of educational FM broadcasting such as programming, organization, staffing, budget, etc., would appear to be of value to groups seeking to upgrade educational broadcasting efforts. This survey seeks to discover trends in these aspects of educational broadcasting by way of a general approach. Perhaps this general approach may lay the foundation for further specific surveys in each of the above-mentioned areas. The general areas which this survey purports to evaluate are:

(1) Station Data. This would include transmitter power, station administraion, years of broadcasting service, and geographical distribution.

(2) Programming. Program sources, program types, music types used, and administration of educational programming are considered.

(3) Equipment. Equipment brands used, preference in brands as to quality and reliability, and trends in equipment purchases.

(4) Budget. Consideration is given to sources of funds, annual increases or decreases, and relative amounts allocated.

(5) Instruction. Uses of station facilities for broadcast instruction are surveyed.

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[1] Levenson, William B., and Edward Stasheff, Teaching Through Radio and Television, (New York: Rinehart and Company, Inc., 1958), p. 47.

To implement this survey a survey form was sent to 154 non-commercial educational FM radio stations as licensed by the Federal Communications and listed as member stations of the National Association of Educational Broadcasters,[1] and the 1962 listing of educational broadcast stations by the Federal Communications Commission.[2] An attempt was made to include educational FM stations in all geographical areas of the United States,[3] however, some states were not listed as having a licensed non-commercial educational FM station.[4]

Of the 154 non-commercial educational FM radio stations which received a form, a total of 99 survey forms were completed and returned for tabulation. This total approximates 64% of the total number of forms which were mailed. Stations participating in the survey include:

WUOA	Alabama	Donald G. Rollins
WWKS	Illinois	E. C. Haddock
WMTH	Illinois	Jack D. Coombe
WMEB	Maine	Curtis J. McCarty
WECW	New York	Donald A. Nolder
WEPS	Illinois	E. H. Hoke
WAER	New York	Ruane B. Hill
WOSU	Ohio	Raymond C. Giese
WWHI	Indiana	Rollin Dygert
KCMW	Missouri	Abe J. Basset
WNIC	Illinois	Robert H. Moore
WVKC	Illinois	Robert Rogers
WFDD	North Carolina	Julian C. Burroughs, Jr.
WFMU	New Jersey	Charles G. Lungren
WUSV	Pennsylvania	B. McLaughlin
WUOM	Michigan	E. G. Burrows
KEBS	California	Frank W. Norwood
KPFK	California	Fred Haines
KCUI	Iowa	William F. Thompson
KFJC	California	George A. Willey

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[1] The NAEB, (Washington: National Association of Educational Broadcasters, 1962).

[2] Op Cit, Gertrude G. Broderick, p. 1.

[3] Including Hawaii

[4] Louisiana, North Dakota, South Dakota, and Idaho

WNTH	Illinois	Donald Ickes, Roland Rude, Charles Rockey
WHKW	Wisconsin	H. B. McCarty
KSLH	Missouri	
WFBE	Michigan	Stephen A. All
KHSC	California	Dr. Dale Anderson, Mr. George Goodrich
WMVK	Michigan	Glenn Bishop
WDFM	Pennsylvania	Harold E. Nelson
WSIU	Illinois	Buren C. Robbins
WBOE	Ohio	Leo Batten
WOAK	Michigan	James L. Mead
WUOT	Tennessee	Kenneth D. Wright
WCWM	Virginia	Carl G. Balson
WVSH	Indiana	M. McCabe Day
WYSO	Ohio	Arthur Solomon
WGRE	Indiana	Elizabeth Turnell
KSTE	Kansas	Charles F. Edwards
WOUB	Ohio	Vincent Jukes
WCBE	Ohio	John H. Sittig
WFPL	Kentucky	Dorothy L. Day
WFPK	Kentucky	Dorothy L. Day
WKSU	Ohio	John C. Weiser
WAPS	Ohio	Carl Falb, Jr.
WPSR	Indiana	Claude B. Smith
WUSC	South Carolina	Mrs. Alice Wyman
WBKY	Kentucky	O. L. Press
OLK	Oklahoma	Dr. William Lillard
KUMD	Minnesota	Robert F. Pierce
WGUC	Ohio	Joseph Sagmaster
KTXT	Texas	Charles E. Buzzard
WNUR	Illinois	Darrel Holt
WGVE	Indiana	Lawrence Venlura
KDPS	Iowa	
KANW	New Mexico	Rose Jeanne Jones
WFCI	Indiana	Raymond Cowan
WETL	Indiana	Galon R. Miller
WBEZ	Illinois	Mrs. Elizabeth E. Marshall
KOSU	Oklahoma	Rowdy L. Williams
WWWS	North Carolina	Dr. Corrinne Rickert
KUER	Utah	Keith M. Engar
KCWS	Washington	John Giles Hoglin
WSHS	New York	Worthington A. Gregory
WVHC	New York	Dr. Frank Iezzi
WHPR	Michigan	
KUSG	California	K. Harwood
WHHS	Pennsylvania	Charles R. Shaffer
KSOZ	Missouri	Joseph F. Embser
KRVM	Oregon	Roger J. Houglum
WMUA	Massachusetts	Dr. Raymond Wyman
WRTC	Connecticut	Clarence Carruth III

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WKAR	Michigan	Richard Estell
WSKS	Indiana	James R. Oliver
WUNC	North Carolina	Donald Upom
WDUQ	Pennsylvania	B. Kendall Crane
WRTI	Pennsylvania	Laurence Blenheim
WHUS	Connecticut	Jeff Tellis
KSDB	Kansas	Robert L. Snyder
WABE	Georgia	Haskell Boyter
KBYU	Utah	Tad Williams
KUOW	Washington	
KCVN	California	John L. Dennis, Ph.D.
WKCR	New York	Jay S. Bulmash
WAMF	Massachusetts	Jim German
KRCC	Colorado	Woodson Tyree
WBJC	Maryland	Paul Nolder
KTJO	Kansas	M. S. Twedt
KWGS	Oklahoma	Edward S. Dymit
WLFM	Wisconsin	Joseph Hopfensperger
WDTR	Michigan	Kathleen N. Lardie
WCMO	Ohio	Bernard Russi, Jr.
WDET	Michigan	J. D. Logan
KVDK	Hawaii	Susanah Lipman
WFSU	Florida	Edward L. Herp
WSLN	Ohio	E. Roderick Deihl
KSDS	California	Charles Parker
WRPI	New York	Richard P. Flam
WGSU	New York	William R. Berry

STATION DATA

Transmitter Power

Output	Number
0 - 10 watts	38
20 - 250 watts	17
500 - 1000 watts	14
5,000 - 10,000 watts	19
15,000 - 50,000 watts	11
75,000 - 300,000 watts	2

Note: (1) 17 stations reported transmitter power which disagreed with data supplied by the Federal Communications Commission.[1]

(2) 5 stations reported assigned frequencies which disagreed with data supplied by the Federal Communications Commission.[2]

(3) The total number of returns (99) so nearly approximated 100, that percentages were obvious, and not tabulated separately from the "number category".

Related Institutions[3]

Type	Number
Colleges and Universities	65
Individual Schools[4]	14
School Districts[5]	12
Public Library	1
No answer	7

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[1] Op Cit, Broderich, p. 1.

[2] Ibid.

[3] Sometimes listed as FCC "license".

[4] Grades K through 12

[5] Sometimes listed as "School City of Gary", "School Corporation", "Board of Education", etc. Denotes school groups

Station Management

This section of the survey form requested data relevant to the person directing the station whether faculty member or student.

Faculty Station Director	27
Faculty Station Manager	23
Other[1]	47
No Answer	2

Relationship to Speech Departments

A total of 65 colleges and universities completed and returned the survey form. Of this number, 30 institutions, or approximately 47% reported that their stations were operated under the direction of speech departments related to the particular institutions. The balance (34) of the institutions[2] answered the question by checking the blank "other".

Years Licensed to Operate

Years of licensed operation	Number
0 - 2	10
3 - 5	18
6 - 10	26
11 - 15	35
16 - 25	5
30 and over[3]	2

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[1] Includes combination of faculty and students, and stations directed and managed soley by students.

[2] One failed to answer the question.

[3] Some stations included years of AM educational broadcasting.

PROGRAMMING

Educational Format

A question was included in this section of the survey form which inquired if the programming of the station was "primarily educational". At first glance, it would seem like an unnecessary question to ask an "educational" station. However, 12 answered "no", and two failed to answer the question.

Program Sources

National Association of Educational Broadcasters. 70 of the 99 stated that their station used program materials supplied by the National Association of Educational Broadcasters. 25 did not use this program source, and 2 did not answer the question.

Other sources. 80 stations indicated the use of "other" program sources, while 15 stated that no sources of educational programs, aside from local sources, were used, and 2 did not answer this question.

Most used sources. The following is a listing of program sources most frequently used by the 99 stations participating in the survey.[1] The sources are ranked in order of frequency of use.

(1) British Broadcasting Corporation

(2) Radiodiffusion-Television Francaise

(3) Canadian Broadcasting Corporation

(4) B. F. A.

(5) Radio Netherlands

(6) United Nations

(7) Air Force

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[1] 53 different program sources were cited.

Music Types

The section surveying the predominate types of music used by the stations ranked as follows:

(1) Classical
(2) Semi - classical[1]
(3) Popular
(4) Broadway musicals[2]
(5) Jazz
(6) Folk music

Programming Responsibility

A question was asked as to the person or group who determined program policy for the station. The following is a listing of the person or group responsible for programming.

Person or group	Number
(1) Faculty Station Supervision	47
(2) Student Station Supervision	19
(3) Student Committee	8
(4) Faculty Committee	5
(5) College Administration	3
(6) Other[3]	14

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[1] on "light-classical".

[2] on "show tunes".

[3] No answer was given on 3 forms.

Local Educational Programs

68 of the 99 stations completing the survey form indicated that "live" educational programs were produced locally. 68 stations broadcast programs produced by the faculty, while 66 stations broadcast educational programs produced by students. 31 of the stations failed to answer the question.

Re-broadcast of Programs

54 stations indicated that programs originating from other stations were re-broadcast by their station. 51 different programs and types were listed. The 40 stations indicated that their station did not re-broadcast programs originating from other stations, and 5 failed to answer the question.

Instructional Programming

40 stations indicated that instructional programs were broadcast for use by classes or groups in area schools and colleges, while 54 stations indicated that no broadcasting was done for such use. 1 station answered the question with both "yes" and "no". 4 stations failed to answer the question.

46 different program types were listed. Subjects included all Curricular and Co-curricular activities.

Length of Broadcast Day

The following table indicates the number of hours of broadcasting per day.

Number of hours	Number
1 - 4	14
5 - 6	18
7 - 8	31
9 - 12	27
12 - up	10

Average number of hours per day for all station equal 8.3 hours. The highest total number of hours per day of educational broadcasting is equal to 17 hours. The lowest total number of hours of broadcasting per day is equal to 2 hours.

EQUIPMENT

Estimate of Investment

Amount	Number
$ 1,000. - 5,000.	10
6,000. - 7,000.	10
8,000. - 10,000.	6
11,000. - 15,000.	11
16,000. - 25,000.	18
26,000. - 50,000.	17
51,000. - 100,00.	5
100,000. - up	5
No answer	13

Lowest investment in equipment	$3,000.
Highest investment in equipment	$200,000.

Anticipated Equipment Purchase

Ranked below are the anticipated major equipment purchases. The types are listed below in order of frequency of listing.

(1) Broadcast quality tape recorder

(2) Transmitter[1]

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[1] Two major reasons listed: (1) Increase in transmitted power, and (" stereo broadcasting.

(3) Contro board

(4) Antenna

(5) Cartridge tape equipment

(6) Remote control board

(7) Stereo broadcasting accessories

Equipment Brands - Predominate Use

The equipment brands used predominantly by the stations are ranked by frequency of use in the table below.

(1) Gates

(2) Ampex, and RCA (tie)

(3) General Electric

(4) Magnecorder

(5) Electro - voice

(6) Collins

(7) Altec - Lansing

(8) Westinghouse

Equipment - Reliability

The stations listed the equipment brands listed below as being the most reliable. Brands are ranked according to the ranking given them by the 99 stations which completed the survey form.

(1) Ampex

(2) Gates

(3) RCA

(4) General Electric

(5) Collins

(6) Altec - Lansing

(7) Magnecorder

Equipment - Signal Quality

The brands listed below were ranked by the stations as producing or transmitting the best quality signal.

(1) Gates

(2) RCA

(3) Ampex[1]

(4) General Electric

(5) Altec - Lansing

(6) Berlant

(7) Presto - Bogen

BUDGET

Total Annual Budget

The survey form requested the stations to list their total annual budget.

Amount	Number
$0 - 1,000.	5
2,000.	14
5,000.	21
7,000.	6
10,000.	77
15,000.	9
25,000.	7
50,00.	5

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[1] The first three were separated by a total of 8 votes.

$100,000.	1
100,000. - up	3

The lowest total annual budget reported was $400.00. The highest total annual budget reported was $238,000.00. 19 stations failed to answer the question. 3 stations made the statement that their annual budget "was not public information".

Source of Budget Funds

Ranked below are the primary sources of funds ranked as they were ranked by the stations.

(1) Administrative funds

(2) Departmental funds

(3) Student activity funds

(4) Other
Included were: "Township funds", "Tax-supported", "Local funds", "School board allocation", "Club fees", "Church", "help from basketball and football funds".

Budget Increase or Decrease

The stations indicated that a majority had received a budget increase, some had a significant increase.

Significant increase	16
Slight increase	22
Approximately the same	35
Slight decrease	1
Significant decrease	2
No answer	23

Broadcasting Instruction

65 colleges completed the survey form. 54 of these institutions indicated that their radio station facilities were used in teaching courses in broadcasting.

SUMMARY

The vast majority of educational FM radio stations are low-power (10 watts) with the primary programming goal of a relatively small, or concentrated listening area.

Most of these stations are related to a college or university under the direction of a faculty station manager or station director. Approximately one-half of the stations related to colleges or universities are operated as a part of a Speech Department activity, and have been licensed to operate an average of 16 years.

The programming of these stations is primarily educational with materials supplied by the National Association of Educational Broadcasters as the primary program source.

Classical and Semi-Classical music predominates as a music type on these stations, along with extensive use of popular music and broadway musicals.

The programming responsibility rests with a faculty station supervisors, and most of the stations surveyed produce "live" educational programs, with approximately 50% re-broadcasting programs originating at other stations. Less that 50% of the stations surveyed broadcast instructional programs for classroom or "in-school" use. The average broadcast day of the stations was 8.3 hours.

The estimated investment in equipment averaged $15,00. to $25,000.,

with an indication that the next major equipment purchase centering around broadcast quality tape-recorders, new transmitters, and new control boards. The equipment brands used predonimantly were Gates, Ampex, and RCA. The total annual budgets for the stations participating in the survey averaged approximately $5,000.00. These funds are derived, primarily from administrative and departmental funds. The majority of the stations indicated that they had received an increase in the amount of their budget over the budget total of the previous year. The majority of the stations related to colleges or universities used their station facilities to teach courses in broadcasting.